Newell (O.K.)

REPRINTED FROM

The Boston Medical and Surgical Journal

APRIL 18, 1889.

DIAGNOSIS OF TUMORS OF THE BLADDER AND STONE WITH THE CYSTOSCOPE.

BY

OTIS K. NEWELL, M.D.,

Surgeon to Out-Patients, Massachusetts General Hospital, Assistant Demonstrator of Anatomy, Harvard Medical School.

Cupples & Hurd, Publishers,

The Algonquin Press, Boston.

DIAGNOSIS OF TUMORS OF THE BLADDER AND STONE WITH THE CYSTOSCOPE.[1]

BY OTIS K. NEWELL, M.D.,

Surgeon to Out-Patients, Massachusetts General Hospital, Assistant Demonstrator of Anatomy, Harvard Medical School.

In no less comprehensive and recent a work than the sixth volume of the International Encyclopædia of Surgery, published in 1886, less than one page is devoted to the direct consideration of the diagnosis of tumors of the bladder, and this subject has, until recently, been only investigated by what have been more or less indirect methods. The great advance made by the introduction of cystoscopic examination of the bladder cavity may be somewhat appreciated by the fact that within the last year I have been able to collect twenty-nine cases of tumors thus diagnosed. As these include three cases of my own, and as I had, as far as I know, the good fortune to be the first in this country to thus diagnose a bladder tumor, I wish to call your attention, not to the subject in general, with which you are all familiar, but to some of the facts concerning the details of examination.

In the first place, as to the possibility of always getting a clear view of the bladder cavity. In my early experience with the cystoscope I must confess that I felt somewhat as though the process was still a quite complicated one, and that too often I should find a bloody or cloudy urine an obstacle in the way of getting a clear view of the bladder wall

[1] Read before the Surgical Section Suffolk District, Massachusetts Medical Society, Feb. 6, 1889.

but I can now say, without hesitation, that always, whether in the course of a day or a week, the bladder can be got into such condition that it is no exaggeration to say with Nitze, it may be examined "as with the light of day." We all know how at times a bladder with hæmorrhagic tendencies will seem for a time to bleed at the least touch or after the slightest locomotion, while again this condition passes off and no ordinary instrumentation or movements seem to incite hæmorrhage. In chronic cystitis I have been surprised when examining patients with this complication to see how readily the bladder may be washed out so that for the time being the distending fluid remains sufficiently clear. I will not dwell upon the appearance of the diseased and normal bladder wall under varying conditions. Suffice it to say that in the normal bladder wall we always readily see the bright-colored vessels running through their bed in the pale-pinkish mucous membrane. The uretal orifices are readily made out, and with moderate distention a few trabeculæ may be present. In the diseased bladder, on the contrary, the mucous membrane may be deeply congested and colored, or even covered throughout with slimy, adherent mucus, which floats about in the distention fluid. The trabeculæ are exaggerated according to the nature of the affection.

All this is seen as a varying panorama in the circular field of the instrument according as it is moved in different directions, and thus what has been called a combination picture of the whole field is obtained. Such pictures as are seen in the field at one time are popularly represented as I have drawn them below. The dark line represents the margin of the field and the drawing within a characteristic view of some part of the growth or

object seen. Small growths or objects may be seen in a single field.

FIG. I.

Fig. I. represents a portion of the first tumor diagnosed by me with the cystoscope. The growth

FIG. II.

was a fibrous papilloma about three times the size of the portion shown in the figure, and was from a patient of Dr. M. H. Richardson's, at the Massachusetts General Hospital.

Fig. II. is from the second case and shows part of a recurrent growth floating up from the base of the bladder. This was a case of Dr. C. B. Porter's, also seen at the above hospital. There were no symptoms to indicate need of another operation. The man had married and had children since the first operation.

FIG. III.

Fig. III. shows view of portion of a tumor diagnosed for Dr. J. C. Warren at the same hospital. The growth was a large one and in the left prostatic portion of the bladder, extending toward the fundus and lateral wall. The patient was not inclined to operation and the symptoms were not imperative.

In diagnosing bladder tumors it is well to remember that a tumor on the posterior wall, or where not hindering urination, may be unaccompanied by pain. Palpation may enable us to detect firm fibrous growths, but not soft papillomatous ones; moreover, with a thick hypertrophied bladder wall and an enlarged prostate, palpation is apt to be very deceptive; renal tumors may, when breaking down, fur-

nish particles of growth pointing to tumor in the bladder where none exists.

Small pediculated growths may be removed from the bladder with forceps introduced through the urethra. Antal in his recent work figures two such cases. The interior of the bladder may be photographed, although this is perhaps of more value in the study of its normal condition than for the portrayal of growths, which may be drawn as made out in the examination, where the field is too often apt to soon become cloudy. With our fearless ether anæsthesia I believe we have a great advantage over our foreign colleagues in the examination of these cases. They appear to be too much afraid of chloro-

FIG. IV.

form to use it frequently for the production of profound anæsthesia such as is needed for the satisfactory examination of a sensitive bladder.

In conclusion I wish to speak of the value of the cystoscope in the diagnosis of stone. Certainly any one who possesses this instrument would never think of searching for stone except by its aid. A bladder containing a calculus may be readily washed so as

to keep a clear distention fluid and the stone or other foreign body readily seen and located. At the same time the character of it and its surroundings may be readily determined, and anything complicating its removal, such as saculation, prostate formation, or tumor readily made out.

Fig. IV. shows a small stone as seen in the field in a case diagnosed by me some time ago at the hospital.